



Input to questions raised by the Article 6.4 Supervisory Body

Axel Michaelowa, Juliana Keßler, Aayushi Singh, Ximena Samaniego,

Olivia Wallis | Freiburg | 6 April 2023

Contact author: Axel Michaelowa

Obere Geerenstrasse 66a

8044 Gockhausen | Switzerland

+41433550073 | michaelowa@perspectives.cc

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Hugstetter Str. 7 | 79106 Freiburg | Germany

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Call for input: Requirements for the development and assessment of mechanism methodologies

Perspectives Climate Research (PCR) welcomes the opportunity to provide input into the questions raised by the Article 6.4 Supervisory Body (SB). Please find in the following our answers to some of the questions. As convener of the [International Initiative for Development of Article 6 Methodology Tools \(II-AMT\)](#), some input provided by PCR is based on the three tools and the guidance document developed under the initiative; this will be indicated as such.

Baseline Setting

General :

2. What is understood by the elements in the chapeau to paragraph 33 of the RMP and how could they be operationalized?

- a) *encourage ambition over time;*
- b) *encourage broad participation;*
- c) *be real, transparent, conservative, credible, below ‘business as usual’;*
- d) *avoid leakage, where applicable;*
- e) *recognize suppressed demand;*
- f) *align with the long-term temperature goal of the Paris Agreement;*
- g) *contribute to the equitable sharing of mitigation benefits between the participating Parties;*
- h) *In respect of each participating Party, contribute to reducing emission levels in the host Party, and align with its NDC, if applicable, its long-term low GHG emission development strategy if it has submitted one and the long-term goals of the Paris Agreement.*

3. How might these elements be further elaborated with reference to literature?

Answer to both questions 2 and 3: *The following resources should be considered when elaborating on elements in paragraph 33 of the RMP:*

- *Encourage ambition over time & contribute to reducing emission levels in the host Party, and align with its NDC, if applicable, its long-term low GHG emission development strategy if it has submitted one and the long-term goals of the Paris Agreement:*
 - *II-AMT TOOL02: Tool for robust baseline setting, <https://perspectives.cc/private/download/12830/?tmstv=1679997311>*
 - *II-AMT GUIDE01: Guidance for evaluating mitigation activities’ links to the host country NDC and LT-LEDS, <https://perspectives.cc/private/download/12826/?tmstv=1679315247>*
 - *Michaelowa, Axel; Michaelowa, Katharina, Hermwille, Lukas; Espelage, Aglaja (2022): Towards net zero: making baselines for international carbon markets dynamic by applying ‘ambition coefficients’, in: *Climate Policy*, 22, p. 1343-1355; <https://www.tandfonline.com/doi/full/10.1080/14693062.2022.2108366>*
- *Be real, transparent, conservative, credible, below ‘business as usual’*
 - *II-AMT TOOL02: Tool for robust baseline setting, <https://perspectives.cc/private/download/12830/?tmstv=1679997311>*

- Michaelowa, Axel; Kessler, Juliana; Espelage, Aglaja ; Ahonen, Hanna-Mari (2021): Best available technology and benchmark baseline setting under the Article 6.4 mechanism, Perspectives, Freiburg; https://www.perspectives.cc/public/fileadmin/user_upload/BAT_in_6.4_discussion_paper_30.08.21_final.pdf .

Specific :

4. What is understood by the performance-based approach(es) identified in paragraph 36 of the RMP?

- a) Best Available Technologies (BAT) that represent an economically feasible and environmentally sound course of action, where appropriate;

Answer: [II-AMT TOOL02](#) defines 'Best available technology (BAT)' as:

- **Technology** is defined in a broad sense, not only covering equipment, but also covering "techniques" i.e., considering the usage pattern of equipment.
- **Available:** Technologies exist or can be accessed or applied on a scale which allows implementation in the relevant sector, under commercially (less restrictive) and financially (more restrictive) viable conditions, taking into consideration costs and benefits, whether the technologies are used or produced within the territory of that Party, as long as they are reasonably accessible to the operator of the facility as determined by that Party. Accessibility relates to the technology and the availability of human resources to install and operate the technology according to its specifications throughout its technoeconomic lifetime.
- **Best:** Most effective in achieving a high general level of protection of the climate e.g., most effective in practical reduction of emissions.

- b) An ambitious benchmark approach where the baseline is set at least at the average emission level of the best performing comparable activities providing similar outputs and services in a defined scope in similar social, economic, environmental and technological circumstances;

Answer: [II-AMT TOOL02](#) defines the benchmark approach as follows: Determine a performance distribution curve using the most up-to-date data (not more than 3 years old) of all technologies providing similar outputs or services in similar social, economic, environmental, and technological circumstances as the proposed activity in the host country. If host country specific data are not available, data from the region to which the host country belongs are to be used. Determine an ambitious benchmark, at minimum at the 20th percentile of the performance distribution curve if the characteristics of the distribution curve show that these percentiles are conservative. Calculate the average emissions intensity of the benchmark group selected in the previous sub-step (the "benchmark emissions intensity"). Downwards adjust the benchmark emissions intensity over the years (i.e., after the first year) to ensure it is in line with the long-term target of the Paris Agreement⁹. This is done through the application of a "Paris goal coefficient", set by the Article 6.4 Supervisory Body and by the host country for Article 6.2, which ensures that baseline emissions fall linearly over time, reaching net zero at the time of the host country's net-zero target.

- c) An approach based on existing actual or historical emissions, adjusted downwards to ensure alignment with paragraph 33 of the RMP.

Answer: [II-AMT TOOL02](#) defines this approach as follows: This option can only be chosen by activity developers for activities in host countries that have communicated a net-zero pathway/target and/or an LT-LEDS, unless the country is an LDC or SIDS. If the eligibility criterion is satisfied, the following steps are to be taken: Determine an actual or historical emissions

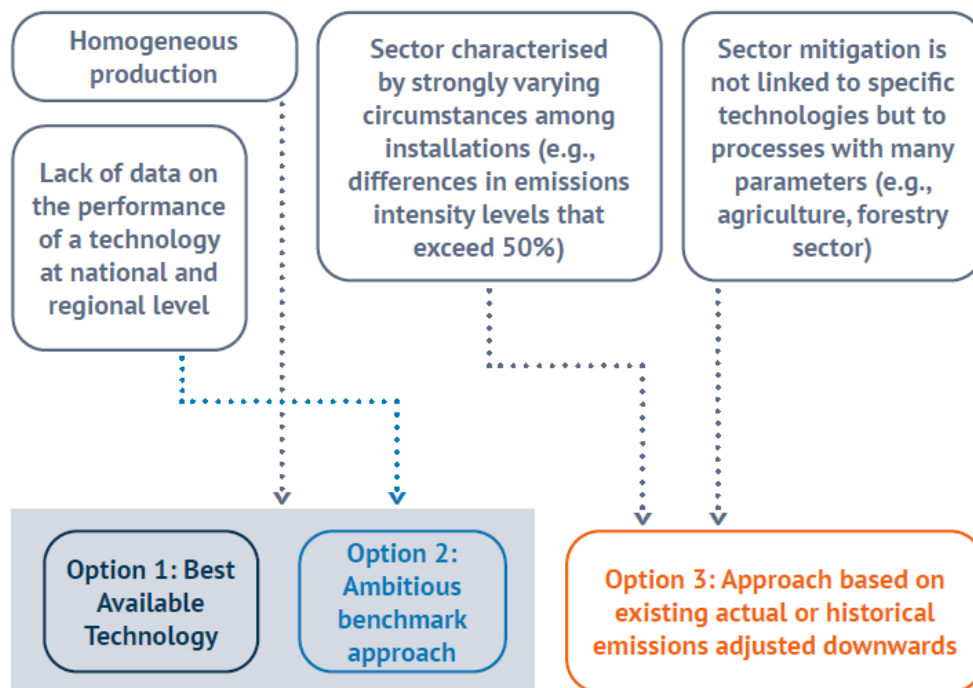
baseline based on existing methodologies used under the Kyoto mechanisms. Adjust baseline downwards through a discount factor (“Paris goal coefficient”) to the actual or historical emissions intensity, declining over time. The historical emissions level of the first year needs to be adjusted downwards by at least 5%. Historical data shall not be older than five years and represent at least a three-year historical time series.

5. Where might each of these approaches be most applicable – with reference to different programmes or experiences?

Answer: Based on the long-standing experience with the CDM and other crediting programmes, the II-AMT experts propose the following approach to the selection in [II-AMT TOOL02](#)(Step 1, para. 14):

- Choose BAT if the sector is characterised by homogeneous production i.e., if there are comparable outputs of produced goods or services, provided a BAT has been specified for the sector in question.
- If a BAT has not been specified for the sector, then choose the ambitious benchmark approach.
- Choose approach based on existing actual or historical emissions, adjusted downwards if:
 - there is no publicly available data on the emissions performance of technologies at the entity-level in the country.
 - the sector shows strongly varying circumstances among installations such as differences in the emissions intensity levels that exceed 50%.
 - the sector has characteristics where the mitigation is not linked to specific technologies but to processes with many input parameters, like in the agriculture or forestry sectors.

Figure 1: Assessment of the appropriateness of performance benchmarking for sectors



Source: II-AMT TOOL02 (2023)

6. How might each of these approaches be implemented – with reference to different programmes or experience?

Answer: We propose the implementation of these approaches as discussed in [Step 2](#) (para. 15-17) of the II-AMT TOOL02:

a. BAT:

- *Define the technology category to which the activity technology belongs, starting from the good/service provided by the activity.*
- *Define the potential baseline technologies that produce an equivalent output of a good/service and deemed available in the host country, i.e., the technologies need not have been implemented in the host country already, but the regulatory, service provider, and financing conditions are available for their implementation.*
 - *For LDCs and SIDS, “available” is considered as technologies that have already been implemented in the country.*
- *Determine which of the identified potential baseline technologies are commercially and financially viable, given the circumstances of the host country.*
- *Identify the potential baseline technologies that are environmentally sound, i.e., in line with national laws and regulations on environmental protection.*
- *Determine the emissions performance parameters and values of the best technology among the commercially and financially viable baseline technologies for the Article 6 activity in the national context, or in the regional context in case there are 3 or fewer national facilities with the given technology.*
 - *Standardised approach is to be applied for large technologies beyond 10,000 tCO₂e annual emissions, where a generic BAT emissions coefficient is to be provided by the host country designated national authority (DNA)*
 - *Tailored process for smaller technologies where the activity developer proposes a performance parameter for approval by the host country DNA.*
- *Downward adjust the baseline emissions intensity over the years of the crediting period to ensure it is in line with the long-term goal of the Paris Agreement, through the application of a “Paris goal coefficient” which ensures that baseline emissions fall linearly over time, reaching net zero at the time of the host country’s net-zero target.*
- *Baseline parameters are to be monitored across the crediting period and regularly updated.*

b. Ambitious benchmark approach:

- *see above*

c. Setting the baseline based on existing actual or historical emissions adjusted downwards:

- *See above. Furthermore,*
- *For the duration of the current NDC period, derive the “Paris goal coefficient” based on actual or historical emissions baseline adjusted downwards in line with a path consistent with the unconditional NDC target (see II-AMT GUIDE01). This is done to ensure the baseline:*
 - *conservatively considers absolute emission reduction/removal target of the NDC (if applicable).*

- conservatively considers the intensity target of the NDC (if applicable).
- conservatively considers all metrics potentially used in NDCs including non-CO₂e metric targets of the NDC (if applicable).
- For periods beyond the current NDC period, derive the “Paris goal coefficient” based on the actual or historical emissions baseline adjusted downwards in line with one of the following options:
 - A path consistent with the national LT-LEDS.
 - A linear path towards the point in time the host country anticipates achieving a net zero target or zero emissions if this is consistent with the long-term goal of the Paris Agreement. For LDCs and SIDS that have not communicated a net-zero pathway/target and/or an LT-LEDS, this is deemed to be 2050 with the downward trend beginning in 2030.
- Baseline parameters are to be monitored across the crediting period and regularly updated.

7. The interaction of the elements from paragraph 33 and approaches identified in paragraph 36 of the RMP:

- a) How do the options for implementation of paragraph 33 of the RMP identified in the paper deliver on the proposed elements?

- i. Scalability and replicability

Answer: We cannot think of any operationalisation option at the methodology-level that would result in increased scalability or replicability. The approaches that have previously been considered in this context (e.g., include progressively more efficient and less GHG intensive technologies in programmes, expansion of the user base etc.), we consider to be implementable at the programme- but not methodology-level.

- ii. Increasing stringency over time

*Answer: Regarding, the **principle of encouraging ambition over time** and thus **the need for baselines to become more stringent over time**, we strongly support the need to apply an adjustment factor such as the baseline contraction factor (BCF) or the “Paris goal coefficient” to the baseline emissions which becomes linearly more stringent over time.*

- b) How could implementation of the approaches identified in paragraph 36 of the RMP address the elements?

Answer: The implementation method proposed by the [II-AMT TOOL02](#) for paragraph 36 of the RMP is the application of an adjustment factor or ‘Paris goal coefficient’ that ensures that baseline emissions fall linearly over time (i.e., increasing stringency over time), reaching net zero at the time of the host country’s net-zero target. The Paris goal coefficient would be set at 100% in 2021 and at zero in 2050 for a country whose net-zero target date is 2050. For countries without a net-zero target, the Article 6.4 Supervisory Body would specify the year in which the Paris goal coefficient reaches zero.

8. Should the stringency over time be in the form of a net-to-gross adjustment to the emission reductions achieved applied in all methodologies, or should stringency be sought through a sector-specific or region-specific adjustment factor, or both?

*Answer: We propose to consider a **country-level approach** as a sector-level approach may not be target-oriented. Allocation of a coefficient to a sector cannot be done in a way that allows for accounting objective parameters given that sectors have very different sizes and govern requirements, and this was already the problem of sectoral approaches in the run-up to Copenhagen (COP15 in 2009). The problem with sector-specific adjustments is that there is no robust way to determine sectoral contributions to the long-term goal of the Paris Agreement, and that sectors are not governed by public institutions. Also, sectoral approaches would lead to competitive distortions between different mitigation technologies within the same country. The disadvantage of a regional approach is the implicit “burden sharing” that it would require, for which equitable criteria are difficult to define. The [II-AMT baseline tool \(TOOL02\)](#) foresees the application of a country-level ambition factor, the so-called “**Paris goal coefficient**”.*

9. **If adoption of a sector-specific and region-specific adjustment factor is proposed, should it be based on projections of sectoral and regional decarbonization pathways provided in the Sixth Assessment Report of Intergovernmental Panel on Climate Change (IPCC) or relevant International Energy Agency (IEA) publications?**

Answer: As said above, we do not support a sectoral or regional adjustment factor. If such a factor would nevertheless be chosen, the most objective source for it should be chosen and this would definitely be the IPCC projection.

10. **Should there be a process to receive such factor(s) recommended by a Host Party for consideration by the Supervisory Body?**

Answer: Host countries should be enabled to apply more stringent factors than the level of factors specified by the A6.4SB/the CMA. They should however have to adhere to minimum levels of stringency and not be able to go below these.

Additionality

General

11. **The interaction of the elements from paragraph 33 and approaches identified in paragraph 36 with paragraph 38 of the RMP on Additionality:**

- a) How should the different elements of the additionality requirements be understood?
- b) How should the different elements be demonstrated?
 - i. ‘would not have occurred in the absence of the incentives from the mechanism’;
 - ii. ‘taking into account all relevant national policies, including legislation’;
 - iii. ‘representing mitigation that exceeds any mitigation that is required by law or regulation’;
 - iv. ‘taking a conservative approach that avoids locking in levels of emissions, technologies or carbon intensive practices incompatible with paragraph 33 of the RMP’

Answer (a, b):

- ***(i) ‘would not have occurred in the absence of the incentives from the mechanism’: the following two steps are proposed in the [II-AMT additionality tool \(TOOL01\)](#) to fulfil this requirement:***
 - *Evaluating **inherent financial additionality risks** (para. 16) relating to the activity type by analysing whether the only source of revenue or savings of the activity is the revenue from the sale of mitigation outcomes. This evaluation will determine*

if an **investment analysis** is required. If the consolidated inherent financial additionality risk is medium or high (i.e., activity type is implemented (frequently) without incentives from the mechanism), then an investment analysis step is mandatory. If the consolidated inherent financial risk is deemed low, the activity can automatically be considered additional, and no investment analysis needs to be carried out.

- **Determining the financial additionality of the activity based on investment analysis (if applicable)** (para. 17) and potentially limiting the crediting period, since investment analysis is considered a necessary step to determine that the activity it is not financially viable without the expected revenues from the sale of the certified mitigation outcomes internationally. The proposed investment analysis requires the identification of what is a financially viable and realistic alternative(s) to the mitigation activity in similar social, economic, and regional contexts. Based on that, it would be possible for the project developer to have a point of comparison for the analysis to identify the value of the economic assessment parameter (e.g., internal rate of return (IRR), payback period) at which a mitigation activity would not be deemed economically or financially feasible, considering all revenues and savings generated by the mitigation activity.
 - **Reassessing regulatory additionality at the point of crediting period renewal** by reapplying the regulatory analysis and the steps afterwards.
- **(ii) ‘taking into account all relevant national policies, including legislation’ and (iii) ‘representing mitigation that exceeds any mitigation that is required by law or regulation: the following two steps are proposed in the [TOOL01](#) to fulfil this requirement:**
 - **Determining regulatory additionality** to confirm that the activity is neither mandated by law nor is the mitigation it achieves effectively required by regulation. This step also includes a check that no legal requirements agreed but not yet implemented that would trigger the activity once they go into effect during the activity’s forthcoming crediting period are in place. If forthcoming legal requirements are identified, then the crediting period initially shall be limited until the date the legal requirements requires the implementation of the activity.
 - **(iv) ‘taking a conservative approach that avoids locking in levels of emissions, technologies or carbon intensive practices incompatible with paragraph 33 of the RMP’: the following two steps are proposed in the [TOOL01](#) to fulfil this requirement:**
 - **Perform a pre-mandatory eligibility test:** The eligibility pre-check aims to prevent emissions lock-in by limiting the eligibility of activities under the Article 6.4 mechanism to activities that are not featured on any negative lists, that are in line with the host country’s long-term low-emissions development strategy (LT-LEDS) (if an LT-LEDS is available) and that do not lead to the continuation of emissions intensive technologies. The latter implies that an Article 6.4 activity should have GHG emissions intensity per unit of production/consumption that is lower than the intensity of the lowest emitting, technically feasible and **commercially available**¹

¹ By “commercially available” is understood that the emissions-intensive technology can be obtained in the country where the mitigation activity takes place, either off-the-shelf or via a bidding process or through a direct contracting process.

production pathway for the product, service, or output delivered. In addition, the pre-check requires that, for proposed activities that lead to the replacement of technologies, the emissions intensity of the new technology is aligned with the generally accepted (IPCC/IEA) emissions scenario for reaching the long-term goal of the Paris Agreement.

Specific

12. Are there classes of project, or levels and lifetimes of emissions that would deliver lock in? how might these be identified?

Answer: To identify classes of project or levels and lifetimes of emissions that would deliver lock in the [TOOL01 \(para. 12\)](#) propose the following definitions to consider:

- **Lock-in of emission levels:** *The proposed activity leads to the adoption or the prolongation of the lifetime, of an emissions-intensive practice/technology.*
- **Emissions-intensive practice/technology:** *A technology/technique that has a GHG emissions intensity per unit of production/consumption that exceeds the intensity of the lowest emitting, technically feasible and commercially available production pathway for the product, service, or output delivered. Note that this definition seeks to exclude the lock-in of incremental improvements in emissions intensity where an alternative technology or technique is available that provides the deep emission reductions required to meet the goals of the Paris Agreement.*

13. Are there classes of project, or levels and lifetimes of emissions that might be favored in a positive list?

Answer: In line with [TOOL01 \(step 3, para. 16\)](#), we propose that the activities that are assessed as low consolidated inherent additionality risk are eligible for a global positive list for financial additionality and do not have to go through a mandatory investment analysis.

14. What elements or criteria should be used to determine eligibility for automatic additionality, i.e., inclusion on a “positive list”?

Answer: Paragraphs 19 to 25 of [TOOL01](#) provide further guidance on how to develop the positive list. Below are some relevant considerations:

- *Activity types that, under all contexts, can show that their net present value of costs significantly (e.g., by at least 25%) exceeds revenues and savings without carbon finance are eligible to be put on a global positive list of “low risks to financial additionality”.*
- *Activity types are eligible to be put on a national positive list if they, in their national context, can show that:*
 - *their costs significantly exceed revenues and savings so that their IRR is negative under conservative assumptions regarding the discount rate, or*
 - *their levelized costs of delivering a product or service are more than 25% higher than the industry average, or*
 - *their marginal abatement cost exceeds a **country-specific** benchmark value.*
 - *a combination of very low penetration rates (e.g., less than 2%) and objectively justified non-financial barriers shows that they cannot be implemented without carbon revenue and that carbon revenue can overcome these barriers.*
- *Positive lists for additionality must meet the minimum criteria specified below before they can be used to substitute step 5 of the procedure (i.e., financial additionality) of the tool.*

- *The process for developing global and national positive lists should include the following:*
 - *Input from experts in the development of the list*
 - *Public consultation period*
 - *Independent assessment and validation of the outcomes of the development process*
- *Positive lists may be adopted by Article 6.4 Supervisory Body (i.e., for use in the Article 6.4 mechanism or in cooperative approaches), by other independent standards, or by parties to the Paris Agreement (i.e., for use in cooperative approaches).*

15. How to consider regulations enforced during the crediting period (CP) under the regulatory surplus test (e.g. At the time of enforcement or at the renewal of the CP)?

Answer: The determination of the regulatory additionality (step 2 of the TOOL01) includes relevant considerations that influence the crediting period, such as:

- *Only legally binding and widely enforced requirements are considered; overarching policy targets or generic plans without specified instruments or means of implementation are not considered.*
- *A mandatory regulatory analysis to determine that the proposed activity is neither directly mandated by law nor otherwise triggered by legal requirements (e.g., legally binding agreements, covenants, consent decrees, or contracts (with government agencies or private parties)).*
- *A mandatory regulatory analysis to determine that there are no legal requirements, either in effect or set to take effect, that would require or motivate the implementation of the activity during the activity's forthcoming crediting period. If such legal requirements are identified, **then crediting for the activity shall only be allowed until the date the legal requirements would take effect.***

16. What elements should be retested during renewal of crediting period?

17. Should the crediting period of less than 5 years be eligible to be specified in methodologies?

Answer to questions 16 and 17: Paragraphs 26 to 28 of TOOL01 provide further guidance on crediting period length and renewal. The guidance for crediting period length and renewal is based on the analysis of the relationship between technology lifetime and type and timing of investment decisions (e.g., for one-off investments decisions versus replacement and renewed investment decisions into the same activity), building on the crediting period length under the Article 6.4 mechanism at either a maximum five years renewable twice or ten years non-renewable.

18. Should enforcement rates of mandatory regulations be considered in the additionality demonstration?

Answer: For the regulatory additionality demonstration, enforcement rates of mandatory regulations should not be considered. We propose that once requirements are widely enforced, these should be considered in the additionality test (in line with II-AMT).

General Questions on baseline and additionality

19. How might the application of the elements and approaches for baseline and additionality identified vary according to countries, sectors, technologies or practices or implementation scale?

Answer: The benchmark baseline setting approaches (BAT, ambitious benchmark) will need to take into account region- or country-specific circumstances. In addition, the adjustment factor should depend on national factors.

20. How might the application of the elements and approaches for baseline and additionality identified vary in respect of activities that occur within the boundaries of a large-scale (e.g., national, sub-national, sectoral) strategy or program for reducing and removing GHG emissions?

Answer: There should not be any changes regarding activities driven by programmatic approaches. Approaches for crediting the introduction of policies are however inherently different to crediting of projects or programmes. Please see Wooders, Peter; Gass, Philip; Bridle, Richard; Beaton, Christopher; Gagnon-Lebrun, Frédéric; Michaelowa, Axel; Hoch, Stephan; Honegger, Matthias; Matsuo, Tyeler; Villa, Vanessa; Johnson, Mark; Harries, James (2016): Supporting Energy Pricing Reform and Carbon Pricing Policies Through Crediting, IISD, Geneva for suggestions regarding policy crediting.

21. How might these elements or options to address them be informed by assessments such as in IPCC and IEA or Food and Agriculture Organization?

Answer: We do not see any relevance of such assessments for policy crediting.

22. How might these elements be informed by host countries standards or policies?

Answer: Policy crediting should relate to the cost-benefit ratio of the introduction of policies. This will be influenced by the policies that are already in place.

Non-permanence and reversals

23. Where are non-permanence risks in respect of emission reductions?

Answer: Non-permanence risks relate to emissions reductions where a carbon stock is the result of an emission reduction (e.g. if avoided deforestation leads to the forest remaining intact – the forest is subject to risks of destruction)

24. How are these typically addressed, what are the options?

Answer: The permanent storage of carbon is integral for demonstrating effective mitigation efforts in the context of carbon markets. However, non-permanence risks differ across nature- and technology-based CDR methods: for example, land- and ocean-based removals are particularly risky considering the potential for natural occurrences (like wildfires) and the mismanagement of activities that can cause reversals². To ensure high integrity in carbon markets there is a need to minimize the risk of non-permanence. In this view, there are several aspects to consider regarding the value of permanent removals:

- ***CDR methods have different risks of reversal:*** Storing carbon in soils and trees is part of the short carbon cycle whereas the storage of carbon in geological formations and minerals is part of the long carbon cycle. The risk of reversals differs drastically as they can take place over years or decades. This poses a challenge regarding the comparison between CDR methods and for the generation of certificates and credits to assign value to emissions removed. The methods should encompass different ways that carbon is accounted, managed, and certified to ensure that carbon removed does not re-emit at a later stage and that it leads to effective climate mitigation. ***Thus, there is a need to manage biological and geological carbon cycles separately.***

² Streck, C.; Scholz, S. (2006): The role of forests in global climate change: Whence we come and where we go, in: International Affairs, 82, p. 861-879; Kim, M.-K., McCarl, B.; Murray, B. (2008): Permanence discounting for land-based carbon sequestration, in: Ecological Economics, 64, p. 763–769, Intergovernmental Panel on Climate Change (2000): Land use, land-use change, and forestry: A special report of the intergovernmental panel on climate change, Summary for Policymakers, Geneva

- **What is the meaning of permanence?** The ‘durable storage’ or ‘permanence’ of carbon is an issue that is inherently linked to the **definition of what constitutes a removal, to which a lack of clarity remains**. To be robust and comprehensive it must include the following principles: 1) emphasis placed on the physical removal of carbon from the atmosphere; 2) that carbon removed is done so with the intention of storing it permanently; 3) other GHG gases are included and associated with removal and storage processes; 4) that the total amount of carbon removed and stored is more than the total amount of what is emitted.
- **Equivalence periods to emission reduction:** Temporary storage will always have a climate benefit as it temporarily reduces CO₂ concentrations in the atmosphere serving to slow the rate of warming down. Even if reversals were to happen at a later point in time, any activity that helps to delay warming will be beneficial for the climate as it can help to buy time for other, more permanent methods to be developed and deployed. Supporters of temporary permanence have suggested the need to calculate an “equivalence period”, after which storage for that period is deemed equivalent to an emission reduction. After the calculated period has expired the reversal would be no longer considered to have a negative impact on the climate. Many baseline and crediting mechanisms apply a 100-year period based on the global warming potential (GWP) for GHGs that is used in the Kyoto Protocol and Paris Agreement. However, other ranges have been suggested: from as little as 30 years (TSVCM 2021) to 55 years (Moura-Costa and Wilson 2000) and even as far as 1000 years (Carbon Plan 2021).³

³ Moura-Costa, P.; Wilson, C. (2000): An equivalence factor between CO₂ avoided emissions and sequestration - description and applications in forestry, in: Mitigation and Adaptation Strategies for Global Change, 5, p. 51–60; Taskforce on Scaling Voluntary Carbon Markets. Phase II Report (2021): https://icvcm.org/wp-content/uploads/2022/03/TSVCM_Phase_2_Report.pdf; Carbon Plan (2021): Permanence Calculator, <https://carbon-plan.org/research/permanence-calculator>



Perspectives Climate Research gGmbH

Hugstetter Str. 7 | 79106 Freiburg | Germany

+41433550073 | michaelowa@perspectives.cc | www.perspectives.cc

